Evolution Notes

Evolution = Change in species over time

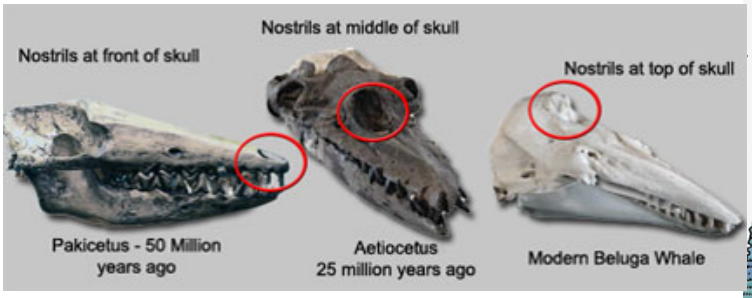
Mechanisms for Evolution:

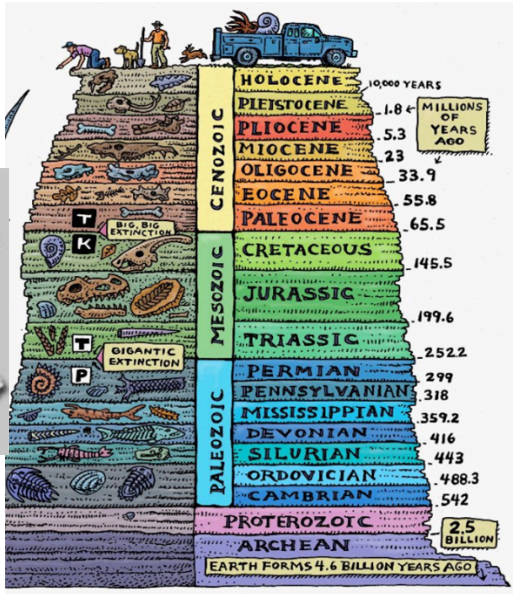
- Mutation
- Migration
- Genetic Drift (random chance)
- Natural Selection

Evidence for Evolution (FAME):

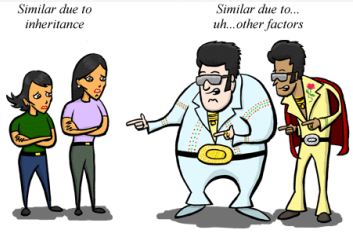
1. Fossils
2. Anatomy
3. Molecules
4. Embryos

1. Fossils: Fossils change a little bit in each rock layer - oldest fossils are deeper.

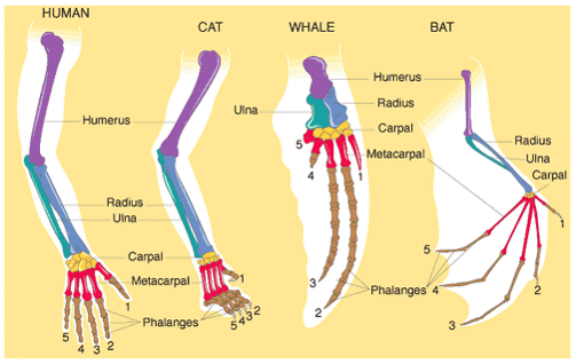


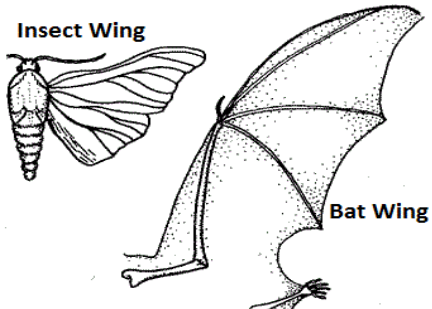


2. Anatomy: Structures in different organisms are compared to find relationships.



- Homologous Structures = Similar body parts in different organisms
- Analogous Structures=Parts in different organisms that have the same function





- Vestigial Structures=A part of an organism that has lost its function over time
- 

3. Molecules: Different species have similar DNA.

Species	Sequence of Amino Acids in the Same Part of the Hemoglobin Molecules
Human	Lys–Glu–His–Iso
Horse	Arg–Lys–His–Lys
Gorilla	Lys–Glu–His–Lys
Chimpanzee	Lys–Glu–His–Iso
Zebra	Arg–Lys–His–Arg

Compare	# differences
Horse and zebra	1
Horse and gorilla	2
Horse and chimpanzee	3
Human and chimpanzee	0
Human and gorilla	1

4. Embryos: The embryos of different species have similarities.



Other Observations:

- Galapagos finches,
- antibiotic-resistant bacteria,
- shampoo-resistant lice

Name: _____ **Evolution Notes** Date: _____

Evolution = _____

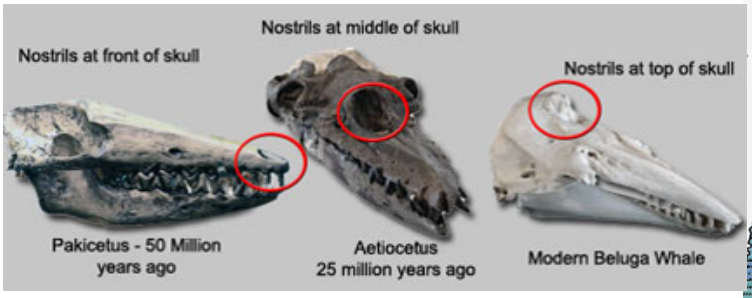
Mechanisms for Evolution:

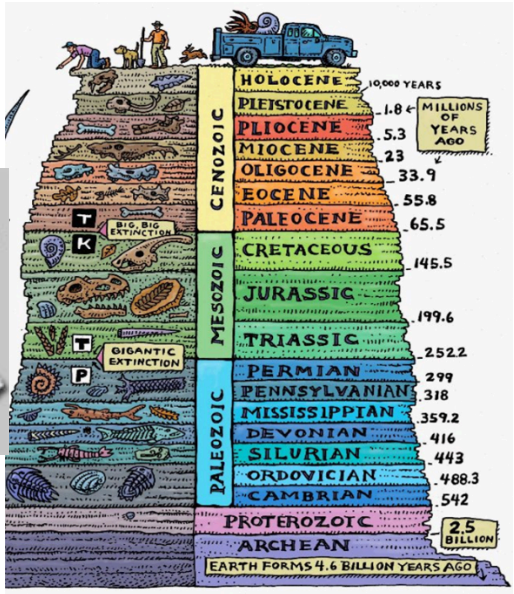
- _____
- _____
- _____ ____ (random chance)
- _____

Evidence for Evolution (FAME):

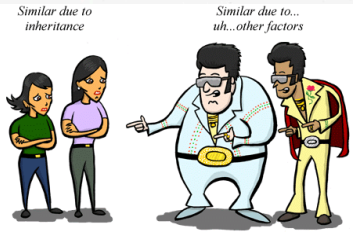
1. F_____
2. A_____
3. M_____
4. E_____

1. Fossils: _____
_____.

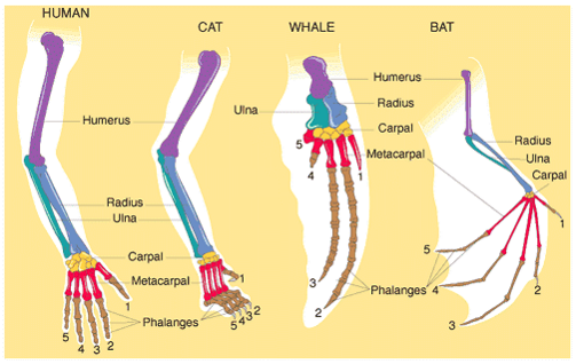




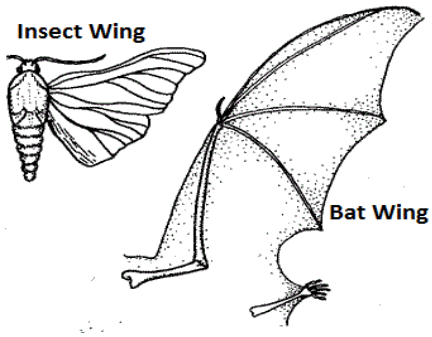
2. Anatomy: _____
_____.



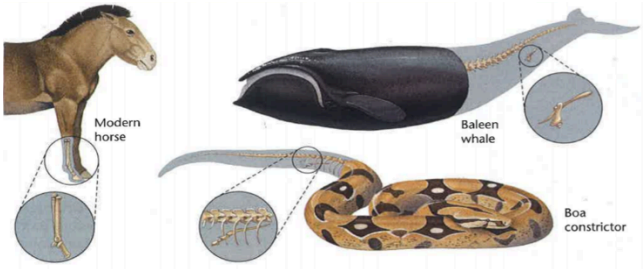
- Homologous Structures = _____
_____



- Analogous Structures= _____
  _____



- Vestigial Structures=_____



3. Molecules: _____.

Species	Sequence of Amino Acids in the Same Part of the Hemoglobin Molecules
Human	Lys–Glu–His–Iso
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Zebra	Arg–Lys–His–Arg

Compare	# differences
Horse and zebra	1
Horse and gorilla	2
Horse and chimpanzee	3
Human and chimpanzee	0
Human and gorilla	1

4. Embryos: _____.



Other Observations:

- _____
- _____
- _____

Find the information to fill in these notes in the “Mechanisms for Evolution” and “Evidence for Evolution” pages in the “Micro-Life” Unit page of the class website at stevens.portangelesschools.org/science8